

Claims

- [c1] A vehicle door assembly for a motor vehicle, comprising:
 - a door frame;
 - a door trim panel secured removably to said door frame;
 - a carrier plate positioned between said door frame and said door trim panel; and
 - a door component fastened to said door frame and to said carrier plate.
- [c2] The vehicle door assembly of claim 1 wherein said door component is selected from the group consisting of an audio speaker, a door latch, and a window regulator rail.
- [c3] The vehicle door assembly of claim 1 wherein said door frame supports more than 50 percent of the weight of said door component.
- [c4] The vehicle door assembly of claim 3 wherein said carrier plate is formed from a non-structural material that supports less than 50 percent of the weight of said door component.
- [c5] The vehicle door assembly of claim 4 wherein said non-structural material is polypropylene.

- [c6] The vehicle door assembly of claim 1 wherein said carrier plate includes a sealable opening positioned for accessing the door component when said door trim panel is removed from said carrier plate.
- [c7] The vehicle door assembly of claim 1 wherein said trim panel is unitary, and further comprising:
 - a first plurality of fastener openings in said door frame;
 - a second plurality of fastener openings in said door component registered with said first plurality of fastener openings; and
 - a plurality of fasteners installed in said registered first plurality and second plurality of fastener openings to secure said door component to said door frame, said first plurality and second plurality of fastener openings being located arbitrarily inside an outer perimeter of said door frame.
- [c8] A vehicle door assembly for mounting to a door frame of a motor vehicle, comprising:
 - a carrier plate;
 - a door component fastened to said carrier plate; and
 - a door trim panel secured removably to said carrier plate.
- [c9] The vehicle door assembly of claim 8 wherein said door component is selected from the group consisting of an

audio speaker, a door latch, and a window regulator rail.

- [c10] The vehicle door assembly of claim 8 wherein said carrier plate is formed from a non-structural material.
- [c11] The vehicle door assembly of claim 10 wherein said non-structural material is polypropylene.
- [c12] A method of assembling a vehicle door of a motor vehicle, comprising:
mounting a carrier plate to a door frame of the vehicle;
removing a trim panel from the carrier plate to reveal a door component secured to the carrier plate;
fastening the door component to the door frame; and
re-securing the trim panel to the carrier plate after the door component is fastened to the door frame.
- [c13] The method of claim 12 wherein fastening the door component to the door frame comprises:
supporting more than 50 percent of a weight of the door component from the door frame after the door component is fastened to the door frame.
- [c14] The method of claim 12 wherein the carrier plate is mounted to the door frame on a vehicle assembly line, and further comprising:
delivering the carrier plate, the door trim panel, and the component to the assembly line as a unit with the door

trim panel removably carried by the carrier plate.